

REMARKS

Claims 1-19, 21, 33, and 35-45 remain pending in the instant application. Claims 1-19, 21, 33, and 35-38 presently stand rejected. Claims 39-45 are newly presented. Claims 1, 2, 14, 33, 35, and 38 are amended herein. Claims 22-28, 30-32, 34 are hereby cancelled without prejudice. Entry of this amendment and reconsideration of the pending claims are respectfully requested.

Information Disclosure Statement

Applicants submitted an Information Disclosure Statement and a Disclosure Citation Form PTO-1449 citing 7 on December 12, 2003. Applicants kindly request that a copy of the 1449 form be returned with the Examiner's initials thereon indicating consideration of the cited art.

Claim Rejections – 35 U.S.C. § 103

Claims 14-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,366,592 B1 to Flanders in view of U.S. Patent No. 6,282,222 B1 to Wieser et al. ("Wieser"), in further view of U.S. Patent No. 6,516,010 B1 to Broutin et al ("Broutin").

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. All words in a claim must be considered in judging the patentability of that claim against the prior art." M.P.E.P. § 2143.03.

Amended independent claim 14 now recites, in pertinent part,

a heat source thermally coupled to at least one of said gain medium and said end mirror to maintain said at least one of said gain medium and said end mirror at a first temperature **above a second temperature of said moisture trap** when said gain medium is not powered to prevent condensation on said at least one of said gain medium and said end mirror

The Examiner acknowledges that Flanders "does not disclose a moisture trap." *Office Action* mailed February 25, 2004, page 4, lines 6-7. However, the Examiner cites Wieser as disclosing a moisture trap (38) and further cites Broutin as disclosing TEC (52) for a heat source. However, neither Wieser nor Broutin discloses a heat source

coupled to maintain at least one of a gain medium and an end mirror at a temperature above that of a moisture trap when the gain medium is not powered.

In fact, Broutin discloses “TEC 52 can be used if desired for thermal expansion matching. As is known in the art for temperature tuned lasers, the output of laser chip 12 can be adjusted by modifying the temperature of laser chip 12....” *Broutin*, col. 3, lines 45-48. However, Broutin fails to teach or suggest TEC 52 coupled to maintain laser chip 12 at a temperature above that of a moisture trap when laser chip 12 is turned off. Therefore the prior art of record fails to teach or suggest all elements of claim 14 as required under M.P.E.P. § 2143.03.

The Examiner further states,

[f]or the benefit of absorb moisture and a heat source thermally, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Flandres to have activated carbon drain and heat source as taught by Yoshikawa et al. and Broutin et al. because those skilled in the art will recognize that such modification and variations can be made without departing from the spirit of the invention.

Office Action mailed February 25, 2004, page 4, lines 12-17. However, a mere statement that modifications of the prior art to meet the claimed invention would have been well within the ordinary skill of the art is insufficient to establish a *prima facie* case of obviousness. The prior art of record simply does not teach or suggest all elements of claim 14.

Claims 1-9, 11-13, and 33-38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Flanders in view of U.S. Patent No. 5,497,937 to Yoshikawa et al. (“Yoshikawa”).

Independent claim 1 now recites, in pertinent part,

a heat source thermally coupled to at least one of said laser source and said external cavity to maintain said at least one of said laser source and said external cavity at a first temperature **above a second temperature of said activated carbon drain** when said laser source is not powered to prevent contamination of said at least one of said laser source and said external cavity.

The prior art of record (including Broutin) all fail to teach or suggest a heat source to maintain at least one of a laser source and an external cavity at a temperature above that of an activated carbon drain when the laser source is off.

Consequently, the prior art of record fails to teach or suggest all elements of claim 1, as required under M.P.E.P. § 2143.03. Independent claim 33 includes similar nonobvious elements as independent claim 1. Accordingly, Applicants request that the instant §103(a) rejections of claims 1 and 33 be withdrawn.

Dependent claims 2-13, 15-19, 21, and 35-38 are nonobvious over the prior art of record for at least the same reasons as discussed above in connection with their respective independent claims, in addition to adding further limitations of their own. Accordingly, Applicants respectfully request that the instant § 103 rejections for claims 2-13, 15-19, 21, and 35-38 be withdrawn.

New Claims

Claims 39-45 are newly presented method claims. Claims 39-45 are not product-by-process claims pursuant to M.P.E.P. § 2113, as these claims do not claim a method of production, but rather, a method of operation. As such, the Examiner must consider claims 39-45 separately from the apparatus claims. In pertinent part, claim 39 recites heating at least one of a laser source and optical elements of an external cavity to a temperature above that of a moisture trap when the laser source is not powered. As discussed above, the cited prior art fails to teach this element. Accordingly, method claims 39-45 are clearly patentable over the cited art.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants believe the applicable rejections have been overcome and all claims remaining in the application are presently in condition for allowance. Accordingly, favorable consideration and a Notice of Allowance are earnestly solicited. The Examiner is invited to telephone the undersigned representative if the Examiner believes that an interview might be useful for any reason.

CHARGE DEPOSIT ACCOUNT

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a). Any fees required therefore are hereby authorized to be charged to Deposit Account No. 02-2666. Please credit any overpayment to the same deposit account.

Respectfully submitted,

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